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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

PROBABLE MORTALITY OF SCALDS AND BURNS IF GREAT EXTENT OF SURFACE BE INVOLVED.

By A. D. BINKERD, M. D.

Of Parker's Landing, Pa.

I report these two cases partly for the benefit of the young practitioner, and partly as a reminder to the profession, showing what dangerous ground we tread upon in venturing an unguarded prognosis in cases of scalds or burns, when a considerable extent of surface is involved.

Recently it has been thoroughly demonstrated that the skin contains a large amount of highly sensitive nerve matter, while the great mass of the nerve centres is naturally in a state of partial anæsthesia.

In this arrangement the wisdom of the Creator is doubly demonstrated. 1st. The outer nerve fibres, nearest all possible danger, are the most vigilant in the discharge of their duty—the most zealous for the welfare of the body. 2nd. The nerve centres being less sensitive, enable the patient the better to endure injury to or inflammation of the parts.

The whole nervous system is subject to a subtle, indescribable, injurious influence, the result of external violence, which, for want of a better or more comprehensive term, we call *shock*. Any considerable irritation of the skin in some way or other inflicts a corresponding degree upon the nerve centres.

The danger of life in scalds, burns and other severe extensive irritations of the skin, is generally commensurate with the severity of the shock sustained by the patient. This was lamentably demonstrated, only a few years ago, in the State of New York, by a minister whipping his child with a shingle. His in-

human flagellation was bestowed upon the greater portion of the surface of the child's body. This extensive and severe irritation of the skin produced such a shock to the young and susceptible nerve centres as to result fatally to the child.

Every surgeon knows that if erysipelas follow in one case the opening of an abscess in each of two patients, one of whom fainted during the operation, the erysipelas will appear on the patient that fainted.

The shock then is the main thing to be provided for or guarded against. It is the effect of some cause, and that cause is the irritation to the sensitive peripheral nerves.

The severity of the shock depends not so much upon the force of the irritating agent as upon the extent of surface involved. In other words, if the irritation be extended over a considerable area, the shock sustained by the nervous system is greater than if the same amount of irritation be expended upon a smaller space, even though the wound be deeper.

Probably for this reason it has been stated of those who have died of extensive, though not deep burns, that they had inhaled fire and thereby sustained mortal injury. In two cases out of three it is safe to question the statement. But since this erudite opinion generally satisfies the friends of the deceased, and no one cares to investigate the matter, time rolls on, and the error is promulgated by high authority.

There are, doubtless, instances in which the patient sustains internal injury by inhaling flame, steam, and noxious gases, but I believe them to be very rare, at least in persons who have escaped from the fiery ordeal with life. The following is the argument I offer in support of my position:

1st. At any fright or gust of wind in the face, or dash of water upon the chest, or anything threatening violence to the lungs, the glottis is instantly firmly closed; and so long as the danger continues, it is held so, unless a sense of suffocation greater than the feared danger forces the muscles to yield in hope of getting air. It is possible to hold the breath for one minute without fatal results. It is not possible to remain so long in a brisk flame without sustaining mortal injury.

2d. The carbonic acid and moist vapor exhaled from the lungs would extinguish the flame before it could do much injury, even though it had entered the mouth. In short, I do not believe that the "internal injury" theory will stand the crucial test of science.

At 7 A. M., July 28, 1870, there occurred at this place another gas explosion, followed by the usual disastrous conflagration so common in the oil regions. The Allen well, where the explosion occurred, is on the river bank, only a few rods from the water. The sucker-rods and tubing had been drawn for repairs, and the oil flowed at intervals through the casing as high as the top of the derrick. Falling back it soon filled the conductor hole, where it stood like water in a well. By and by it found its way unobserved into the cellar of an adjacent building. Here the gas accumulated till it filled the cellar, and made its way into a room on first floor, where it was ignited by a fire that had just been kindled in a stove. In an instant the fire was communicated to the gas and oil issuing from the well. This was accompanied by a tremendous explosion that turned many eyes to the spot, only to witness a horrifying sight.

Mr. John Wesley Rinker, one of the operatives, had just entered the derrick when the explosion occurred, and George Carter (a lad of 19 years) was passing along the road between the house and the well at the same instant. Both were seriously burned. Mr. Rinker's clothes being saturated with oil, burned like a torch till he ran into the river and extinguished the flames. This occupied about two seconds of time. Mr. Carter's clothes being dry burned less fiercely, but he also ran into the river, where they would both have perished but for the help of friends who came to their rescue.

Being called in great haste, I repaired to the scene of the accident as speedily as possible. I found Mr. Rinker very badly burned; pale from intense suffering; walking the floor

uttering lamentations, and calling every few minutes for fresh cold water. The woolen shirt, except the seams, was literally burned off, leaving the chest, arms, neck, and face a blackened, roasted mass, full of agony. The skin of both arms, back and chest was hanging in shreds, while some of the fingers had slipped out of their integument, which resembled the fingers of a torn glove. The hair was burned to a crisp almost to the scalp. The entire surface was excoriated or congested from the hair of the head to the waistband of the pants.

I administered at once about a grain of the sulphate of morphia, and made all possible haste, assisted by several attendants, to cover the parts with soothing applications, such as carbolic acid and glycerine, linseed oil, flour, raw beaten eggs, sufficient to make an impervious coating over the raw surface, then a layer of carded cotton and a roller bandage finished the dressing. As there was yet no abatement from suffering, I gave two grains more of morphia. In about an hour his system began to respond to this powerful anodyne and he had a little rest. He was not free from pain, and constantly craved water. The expression of countenance and the great extent of irritated surface convinced me, in a moment, that the patient could not survive. After reaction took place the machinery that carried on the vital functions simply ran down. He soon became delirious, vomited freely from excessive drinking, and died, comatose, on the evening of the third day.

Several physicians of much experience were called in, and I was surprised that some of them entertained hopes of the man's recovery.

The skin of the entire chest inclosing the vital organs, together with that of the arms and hands, neck and face, was either crisped, blistered, or highly congested. In such cases, I would think it requires but little experience to put the physician on his guard in giving a prognosis.

I did not see Carter for several days after the accident, as my partner, Dr. Hall, was attending him. Carter was very badly burnt, having about five superficial feet of excoriated or highly congested surface, his breast and sides being very little injured. The shock was followed by reaction and a bounding pulse, which was measurably controlled by equal parts of the fluid extract of veratrum and sweet spirits of nitre in eight drop doses every

four hours, or at greater interval, according to the condition of the pulse.

Saline cathartics and anodynes were called into use when indicated. For some days his recovery seemed doubtful, but he is now out of danger, except from intercurrent disease.

When this patient was only two years old he sustained a severe burn which left a deep scar just below the right scapula; now, after the lapse of seventeen years, the same part was again severely burnt. It may be of interest to your readers to know that the analogous tissue of the first burn shows no tendency whatever to heal, but is sloughing out down to the bottom of the old burn, where the margins look dark and unhealthy.

We are using the ointment of which I gave the recipe in number two of this volume. The more we see of its effects the better do we like it. Since we deem it worthy of trial and confidence, I will give the recipe again, as adapted to the warm weather of summer:

R. Bees wax melted and strained, f. ʒj.
Flaxseed or sweet oil, f. ʒij.
Tannin or tannic acid, ʒj.

Mix as follows: put in a clean tin vessel and melt the wax; add the oil, and stir till they are thoroughly incorporated with each other, then set off the stove and continue to stir at short intervals till cold; add the tannin immediately after setting off. As bismuth is the most offensive drug in the former recipe, I did not use it in this case, but I added with, I think good effect, a few drops of liquid carbolic acid to the ounce. After thoroughly cleansing the parts every day, and the free use of this ointment on patent lint, the smell disappeared, the suppuration ceased, and granulations are abundant and healthy everywhere, except on the old burn, which continues to run, but with a marked change for the better.

MEDICAL SOCIETIES

COVINGTON AND NEWPORT MEDICAL SOCIETY.

Diseases of the Viscera of the Pelvis.

By CHARLES KEARNS, M. D.

(Reported by J. W. HADDOCK, M. D.)

The viscera of the pelvis, when diseased, present difficulties in diagnosis which have determined me to report to the society three cases which have come under my observation, two of which have never been clearly understood, one still under treatment.

The first case was a female, unmarried, 26 years

of age, and from the examination and symptoms hereafter to be described, was thought by myself to be an *ovariitis*. Menstruation occurred regularly, without anything unusual, until the 25th year, when, from unknown causes, it became painful, requiring opiates, fomentations, etc., with confinement to bed for four or five days. The interval between these attacks was marked by no evidences of disease, except, perhaps, a little loss of flesh. These pains, at this time, preceded the flow, and after quiet had been obtained, the flow commenced and terminated as in health.

This state of things continued six or eight months, when the pains, instead of preceding the flow, as at first, followed it.

Twelve months after the commencement of this dysmenorrhœa the pains during the menstrual period were referred to the right iliac region, and upon examination an enlargement was discovered, which became a well marked movable tumor, with but little tenderness to the touch, but to the patient producing a painful sense of weight and uneasiness, which, under treatment, or from natural causes, disappeared in four or five weeks, leaving no reminder but these pains, which now succeeded the menstrual period, with less severity and which have since so gradually and completely disappeared that she cannot recollect with any exactness their termination.

On examination I discovered no unnatural heat, no displacement or enlargement of the womb; in fact, nothing but the dysmenorrhœa and enlargement in the right iliac region indicated any departure from the normal state.

The second case was an enlargement in the right iliac region of a woman who had borne children, and had arrived at the age when menstruation ceases. She was attacked with dysentery, which ran the ordinary course, and was discharged but a few days when the difficulty occurred—I may say was ushered in by a tumor in the right iliac region, which was painful to touch and well defined, but differing from the other in being more movable, very painful, and distinctly gravitating to the most recumbent part of the body. This was thought by myself to be an extension of the inflammation of the large intestine as far as the cæcum, involving its appendage. After leeching and other appropriate treatment the pain ceased, and the tumor was sensibly diminished. Sloughing of the rectum was superadded to her other troubles, and after divers consultations I was discharged. Another physician was called, who reported her death to me in a few days, as evidently resulting from the gangrenous inflammation of the rectum and adjacent tissues, the ilio-cæcal tumor not afterward complicating the dysentery sufficiently to require treatment.

The difference, physically, between the enlarge-

ments is manifest. The first was lower down, less movable, and was always free from any thing like intense pain, never giving, externally or generally, any indications of active inflammation, and if it was an ovaritis, must necessarily have been of long standing to enlarge the organ sufficiently to force it from its natural position in the pelvic cavity, where it was distinctly felt and seen. The passage of fecal matter from the bowel in the first case did not give pain. In the second, peristaltic motion without a discharge was sufficient to produce at the point of enlargement intense agony, and the evidences of acute inflammation were marked.

The first case, from the previous dysmenorrhœa, from the pain during the menstrual period being referred to that point, and from the absence of pain except at this time, must in some way have been connected with the organs of generation. If inflammation of an ovary, it must have been chronic, as it gave rise to no general symptoms of inflammation, and must have terminated by resolution. If an ovarian dropsy, its growth was slow, its size too small to feel fluctuation in the sac, and its termination unusual by absorption.

The second case, a secondary affection resulting from the extension of a previous inflammation. The first idiopathic, or so obscure as to its cause that, although ovaritis is a rare disease, I think I am justified in my diagnosis.

The third case, is one of more obscurity than either of the preceding and, necessarily of more interest.

On the 12th of March I was called to see Eliza K——, æt. 26 years—unmarried. She had taken cold, had headache, pain in the limbs and back, a furred tongue and a frequent though feeble pulse. She had menstruated twelve days before I saw her, and generally had no difficulty. I prescribed for her, and on the fourth day discharged her. Six days afterward I was called to see her, and upon examination found in right iliac region a small, well-defined, movable, painful tumor. So painful as to prevent rest at night. I made an examination per vaginam, thinking it must, in some way from its location, be connected with the uterus; found the vagina cool and moist, the uterus in its natural position, and, as near as I could determine, of natural size. By making firm pressure upon the os she complained of pain in the right side. I gave her a brisk cathartic, and ordered leeches applied to the enlargement, after which the tumor diminished in size and was less painful.

The girl's habits were sedentary and work hard, sewing for a living, and doubtless her living none of the best. Had no companions, being comparatively a stranger; was melancholy, and upon close inquiry learned that she had practiced masturbation for three or four years. After the leech bites would

peruit, applied iodine, giving small doses of calomel and opium; the tumor increasing in size, less movable and more painful. It now occupied the right inguinal region, extending along the inguinal canal to the pubes, occupying a part of the hypogastric and umbilical regions, leaving, where the tumor first made its appearance, a well marked circular prominence, its hardness, as described above, being distinctly traced with the hands.

This case differs from the preceding two in diffusing itself rapidly; from having, so far, no connection with menstruation; in being at the present time immovable; in having no ailment precede it, unless her indisposition of a few days could be called so; in having her bowels move regularly and freely without increasing the pain or materially affecting her in any way. I mention her habit of pollution because I have seen it stated that nymphomania may produce an ovaritis, and that ovaritis may produce nymphomania.

The peculiarity of each of my cases is their situation in the right side; but their symptoms are so dissimilar that they are analogous only in situation.

This case now presents such diffused hardness that, as has been suggested to me, it may be an abscess forming in the abdominal muscles—really it is the most likely; its irregular shape, rapid growth, and continued painfulness. Acute ovaritis is a rare idiopathic disease, is rapid in its course and dangerous in its results; but chronic irritation or congestion of an ovary is thought to be common, and may result in enlargement without any active symptoms of inflammation. Ovarian cysts are of slow growth, and are generally painless.

The enlargement in the last case continuing, I thought, with the aid of Dr. King, that the circular prominence was softening, and using the exploring needle found pus; afterward enlarging the opening, there was a discharge of at least three pints of very offensive matter; the discharge continued in abundance ten days after lancing; general health still good, or should say improving, with every indication of complete recovery.

Needle Gun and Chassepot Wounds.

The *British Medical Journal*, August 20th, says:

It is stated that of the wounded who are received in the German hospitals, the least severely wounded are the French prisoners who have been hit by the projectiles of the needle-gun. Unless they strike full upon the body these balls, in the majority of cases, inflict mere flesh-wounds. From their elongated forms, they turn readily upon striking a bone, and, consequently, the wounds are comparatively trifling. Far more serious are the ragged wounds inflicted by the Chassepot, which, at short distances, appear to hit extremely hard; but worst of all are the wounds of the mitrailleuse balls, which seem completely to smash any bone against which they strike.

EDITORIAL DEPARTMENT.

PERISCOPE.

Address in Surgery before the British Medical Association.

We present below an outline, comprising the essential portion of Mr. GEORGE Y. HEATH's address in Surgery before the British Medical Association, at its meeting in Newcastle last month. It contains many valuable thoughts and suggestions, barring its national, not to say provincial, exclusivism:

THE AUDACITY OF MODERN OPERATIVE SURGERY.

You, gentlemen, among whom are some of the most intrepid operators of the day, will have no difficulty in recalling examples of the Audacity of modern Operative Surgery. You know that the boldest exploits recorded in surgical annals have been repeated but recently; that, in obstruction of the gullet, the stomach has been opened, and the patient fed through the opening; that the kidney has been cut down upon, and stones taken from it; that the aorta has been tied; that the removal of the whole upper extremity (the shoulder-blade, part of the collar-bone, together with the arm) either on account of accident or of disease, has become a not unfrequent proceeding. Upon the table before you there is perhaps as large a mass as has ever been taken away along with the upper extremity—an immense enchondroid tumor. You know, that operations which but a few years ago were counted unjustifiable, such as ovariectomy, are now established on the firm basis of success; that feats even more startling, which might make even the initiated tremble, have been undertaken in isolated or comparatively rare instances, with a fortunate result; that the spleen has been taken away, the kidney extirpated, as a sequel to ovariectomy; and, not to multiply examples, that the uterus has been removed several times alone, and also together with a large cyst and with all its diseased appendages, constituting a large mass.

But it must not be supposed that, because these great operations are cited as illustrations of the audacity of modern operative surgery, they have no other claim to our admiration. Many of them were successful endeavors to save life under the most unfavorable circumstances; and none were undertaken but after a patient investigation of facts, or without a careful and judicious consideration of all the aspects of the disease and of the condition of the patient. All were performed according to sound surgical principles, and for the removal of disease in itself necessarily fatal.

CONSERVATISM OF MODERN SURGERY.

The term Conservative, as applied to Surgery, is quite of modern origin, and dates from the year 1852, when it was first made use of by Sir William Fergusson. The conservative spirit, however, influenced the practice of surgeons in much more ancient times, as we know from the works of Paulus Ægineta, who distinctly speaks of the excision of the joint-ends of bones, and of the removal of entire bones in lieu of the amputation of the limb.

The story told by Garengot of the man whose nose, having been bitten off in a drunken quarrel in a wine-shop, fell into the kennel, was picked up, washed and reapplied to the face and grew there, can scarcely be quoted as exemplifying Conservatism in the special sense which has been given to the term in recent years. A predecessor of mine in this town, some fifty years ago, acted quite within the strict meaning of the term when, in a case of compound dislocation of the ankle-joint, where certainly most surgeons of that period would have amputated the foot, he merely removed the astragalus and saved the limb. The gentleman who had the good fortune to be the subject of this, at that time, somewhat unusual act of conservatism, was afterwards well known to me, and walked with only a very slight halt. Another Newcastle surgeon, who, I am happy to say, is yet hale and well, practiced the excision of the os calcis some time before the mention of the phrase by which we would now characterise the operation.

It is, however, since the publication of Sir Wm. Fergusson's paper that the attention of the profession has been more thoroughly roused and directed to this principle in surgery, which, during the last ten or fifteen years, has been more and more widely acted on, and is now so completely established as to be one of the most marked characteristics of modern Operative Surgery.

EXCISION OF JOINTS.

The removal of diseased joint-ends of bones is at present one of our most common proceedings, and has gradually been applied to most of the articulations in the body. The excision of the separate bones of the tarsus and carpus, and of the whole shaft of long bones, is not less frequent; and even such bones as the shoulder-blade and collar-bone have been several times removed, the extremity which they support being preserved.

RESECTION OF BONES.

It is interesting to note the advance which has taken place, in a conservative direction, in the

method of performing resection, itself the stronghold of conservatism. The external incision, at first more or less complex, has been reduced in most situations to a linear and less extensive one; the amount of bone thought necessary to be removed is less; and recently the practice of subperiosteal section has been adopted, by which an important structure is preserved and reparation favored. After excision by this method we rarely meet with those cases of withering, the result of too extensive removal of parts.

AMPUTATIONS—THROUGH THE KNEE-JOINT.

Even in what we might call the hostile territory of amputation the same principle is at work, leading us to remove limbs at points as far distant from the trunk as possible, as in the amputation through or immediately above the ankle-joint, instead of below the knee, and through the knee instead of at the middle or lower third of the thigh. Few amputations are followed by a more satisfactory result than that through the knee-joint, when done so as to leave an anterior flap to cover the end of the bone, from which the articulating surfaces need not be removed. The wound heals rapidly; no raw surface becomes exposed; and a shapely useful stump is the result. These conservative amputations possess several advantages, since they not only leave a more serviceable stump, and interfere less with the symmetry of the body, but they also increase immensely the patient's chances of life.

The cast upon the table was taken from the thigh of a young woman whose recovery would assuredly have been much more doubtful had amputation through the mid-thigh been resorted to. Her leg had been frightfully mangled in a steam thrashing-machine, and the bones broken into small pieces up to the knee-joint; a quantity of blood had been lost; and, when seen, she was in such a condition of collapse that the propriety of any operation seemed doubtful. It was just possible to obtain an anterior flap to cover the end of the femur; and, death being otherwise certain, amputation through the knee was done. The pulse afterward was barely perceptible; and for thirty-six hours it seemed most unlikely that life should be preserved. Subsequently she rallied; and restoration to health was ultimately rapid. She was able to be out of bed in fourteen days; and the stump entirely closed in a very short time.

PRESERVING THE NASAL BONES.

A peculiar signification is given to the term "conservative" by Sir W. Fergusson, who uses it to designate those operative measures by which limbs or other parts of the body are more or less completely preserved. Such proceedings as have been already mentioned come strictly within this meaning; so, too, would some of the modern operations for the

removal of growths from the jaws and the neighborhood of the orbit. Malignant growths occupying the ethmoid cells and displacing the eye outward, as well as exostosis springing from the os frontis, it may be extirpated by means of a proceeding which preserves the nasal bone, and, as a consequence, the contour of that important feature, the nose. This bone is raised up along with the skin covering it, so that it may be laid down again in position after the operation and preserved; the only structure absolutely removed along with the diseased growth, in addition to portions of the ethmoid, being a part of the nasal process of the maxillary bone. The mark left after this measure is exceedingly trifling.

REST AND POSITION IN TREATMENT OF COMPOUND FRACTURES.

The treatment of an ordinary compound fracture could not be looked upon as falling within the meaning of conservatism in surgery; but I know no other term which can adequately describe the carrying through to a successful termination a case of such aggravated injury as would raise the question of the propriety of amputation.

There are perhaps few questions in surgery which afford a greater test of judgment, experience, and decision, than that which we have to ask ourselves in certain cases of injury—Shall this limb be removed or not? When the question has been answered in the negative, there are also few cases which afford a greater test of our patience, perseverance, readiness at expedients, watchfulness, minute attention to details, and capability of using mechanical forces.

One at least of the most important elements in the successful treatment of such cases is to be found in the great principle of rest, as carried out by means of apparatus which shall at the same time perfectly support the limb and retain it in position, and allow dressings to be applied without disturbing it.

After speaking of several different forms of splint invented and used by different Newcastle sergeants, with the view of securing rest and retaining the limb in position, Mr. Heath goes on to say:

As I have assumed that we are more fortunate in saving severely injured limbs than were our predecessors, the question may fairly be asked by what particular means this result is obtained, seeing that thirty years ago the ordinary principle of fixing the limb and keeping it at rest was enforced, as at present, by suitable apparatus; and that the rest of the treatment was also in most respects similar to that now in use, such as the removal of broken pieces of bone, the practice of incisions when required, and so on. I would reply—1. That the attempt to preserve limbs is made more frequently at present, modern surgery being more thoroughly conservative; 2. That we have a greater choice of, and also improved, apparatus for keeping the part at rest;

3. That our knowledge—though still very incomplete—of the mode in which some of the most frequent causes of failure in the treatment of these injuries, as well indeed as of other wounds, has increased of late years, and therefore our power of coping with them has also increased.

HOSPITALISM AND THE USE OF ANTISEPTICS.

This brings me at once to the verge of two large and weighty subjects, the consideration of which, however, is quite beyond the scope of my design. I should merely wish to observe that, while I believe that the employment of antiseptic agents constitutes an important principle in modern surgery, I also think that their use has scarcely received so unprejudiced a consideration as it deserves, in consequence of its being so much identified in the minds of the profession with one particular method, one special agent, and one peculiar theory of disease.

STRAIGHTENING A CROOKED LIMB.

There is here a cast of a badly united leg, which was almost useless, and the seat of constant pain. The patient would gladly have exchanged his burdensome limb for a wooden pin; but, acting in the spirit of conservatism, although the word was not then used, I cut out a wedge from the projecting tibia, divided the fibula with cutting pliers, and set the bones straight. The result is seen in the fellow cast. This operation was performed more than twenty years ago; but I had an opportunity of seeing the patient a few days since, and he informed me that, although the leg operated upon is somewhat shorter than the other, he has never experienced the slightest inconvenience, and for these twenty years it has been a good, serviceable limb to him.

ABSTENTION FROM USE OF THE KNIFE.

There are few structures of the body which have been the field of more brilliant and daring operations than the arterial, whether these have been executed to stanch the flow of blood from a wounded vessel, or for the cure of aneurismal disease. Such operations have been oftentimes as successful as they have been daring; but too often, also, they have been brilliant failures, followed by a fatal result; sometimes life has only been preserved at the expense of a limb. Much has already been done in modern times to diminish the number of such failures, and to further the conservation of limbs by the employment of mechanical measures in the place of cutting operations. In carefully adjusted position, for instance, we have a ready means of modifying the force of the arterial stream. The mere elevation of a limb exercises considerable influence over its circulation; but other positions, such as extension and flexion, either with or without elevation, may be so employed as to keep the blood stream under almost perfect control.

ELEVATION AND OVER-EXTENSION TO CHECK THE FLOW OF BLOOD.

A young woman was admitted into University College Hospital, a good many years ago now, whilst I held the office of House Surgeon under Liston, in that institution, with a wound of the superficialis volæ artery, inflicted by the point of an oyster-knife; the injury had been done some days before her admission, repeated attacks of bleeding had occurred, and vain attempts had been made to secure the ends of the vessel in the wound; the hand was swollen and inflamed, and the wound in a sloughy condition. I had her arm raised very high upon pillows, and stretched out in the extended position, by bandages to the hand, whilst irrigation with cold water was employed to the wound, which was uncovered. No bleeding recurred. At the time, I believed that the elevation of the limb was the sole cause of the arrest of bleeding; but I am now inclined to think that the extended position of the arm was also not without some effect.

My attention was first drawn to the effect of this position two years ago by one of the surgeons of the Lariboisière, who informed me that he had ascertained by experiment that by extreme extension the force of the arterial circulation might be materially modified. I have myself experimented upon this position, and find that, in thin persons particularly, extreme extension, or, as it may be shortly called, "over-extension" of the elbow-joint, enfeebles the pulse at the wrist, and where the elbow-joint admits of being so extended that the end of the humerus presses forward against the artery, the pulse is entirely extinguished. Abduction of the shoulder-joint and over-extension of the wrist aid this effect. In the lower extremity, if a hard cushion be placed under the buttock, and the hip and the knee-joints over-extended, the pulse at the ankle is also very greatly enfeebled. I have not employed this method in cases of actual bleeding; but although the position might be difficult to enforce, believe that it would be useful, at least as an auxiliary measure.

OVER-FLEXION TO CHECK THE FLOW OF BLOOD.

The power exerted by the bent position of a limb, or over-flexion, upon the blood-stream, first came under my notice a good many years ago in this way. In the year 1848 or 1849 a traveling jeweler, who had a booth at one of the periodical fairs in this town, having occasion to get up in the night, struck his leg, whilst walking across his booth, against the sharp projecting end of the broken top of one of his jewel cases. He fell to the ground in a fainting state; and Mr. Featherstonhaugh, a surgeon here, was hurriedly sent for to see him. Mr. Featherstonhaugh found a punctured wound high up in the leg, passing deeply between the bones, and bleeding furiously; being alone in the middle

of the night, and without instruments, no operation could be attempted; and he endeavored to stay the bleeding by plugging. This was utterly impossible; in spite of his efforts, the blood continued to well up from the wound like water from a spring. Mr. Featherstonhaugh was at a loss for a time what course to pursue, when it occurred to him to bend the leg forcibly upon the thigh; the flow of blood at once slackened, and pressure by pads now easily arrested the hemorrhage. The bent position was not kept up in this case, and bleeding recurred, on account of which I saw the man with Mr. Featherstonhaugh; and ultimately the anterior tibial was ligatured at the wound, and a piece of broken glass removed from the interosseous membrane.

The point in the case which I now wish to notice, is the marvelous effect produced by bending the knee. This effect was never forgotten by me; and since that time, but more particularly of late years, I have frequently had recourse to this expedient to stay arterial bleeding, sometimes temporarily, often permanently. For some time I hesitated to trust to this proceeding alone. Latterly, however, I have frequently done so, and have treated wounds of all the vessels of the forearm; of the radial, in the middle of its course, and near its termination, between the metacarpal bone of the thumb and that of the forefinger; of the ulnar and its upper third; of the superficialis volæ and the palmar arch, by flexion of the elbow. I have not had such frequent opportunities of testing this means in the lower extremity, but have employed it occasionally to restrain secondary bleeding from stumps, with marked success, and also in a case of malignant disease in the lower third of the tibia, where profuse hemorrhage followed an exploratory incision.

From certain experiments performed under Mr. Heath's direction, as well as from those cases of actual bleeding in which this method has been used, it may be fairly inferred that we possess, in overflexion, a blood-controlling agent of considerable power, which can be applied on the shortest notice, which requires neither instruments nor apparatus other than can be obtained in the poorest cottage; which can be put in force by any one possessing neither special knowledge nor operative skill; which is not dangerous in itself; and which may be relied upon with certainty to restrain bleeding, at least temporarily, even when it may fail permanently to arrest it. The bleeding from a wounded artery is so striking a thing—so many circumstances concur to attract the eye and arrest the attention—the crimson blood flying in jets across the room, or welling from the wound; the deathlike aspect of the bleeding man—his livid pallor and convulsive agitation; these are so appalling; the absolute danger is so great and imminent, that we do not wonder if the ordinary by-stander is palsied by

affright, and the surgeon himself deeply impressed by the gravity of the situation. It is to such a scene that suddenly, and without preparation, he may be summoned, perhaps to some remote place, it may be in the middle of the night. Without assistants, except the terror-stricken spectators, who encumber the room, by the flickering light of a candle, a practiced operator might hesitate to undertake the search after the wounded vessel. If, then, at such a time, the mere flexion of a joint will remove the danger, allay the tumultuous excitement, dissipate the apprehension and anxiety, and relieve the surgeon from an embarrassing and perhaps doubtful operation, were it only temporarily, it is surely a valuable addition to our resources.

But when I find that in the upper extremity overflexion may be relied upon as a permanently efficacious measure, enabling us, in wounds of the palmar arch for instance, to avoid a tedious and perhaps mischievous dissection in the palm, or the ligature of all the arteries of the forearm or of the brachial; when I recall to mind the controversies which have prevailed as the best treatment of repeated and secondary hemorrhages; the choice offered to us between a tedious, difficult, and uncertain dissection in the midst of an ill-conditioned wound, or among a huge collection of clots, in search of the bleeding orifices, and a serious operation to ligature the trunk, in the lower extremity at least—an uncertain, not always effectual, and sometimes dangerous, proceeding; when I read in the most recent systematic works on surgery, that secondary hemorrhage from the deep arteries of the leg is a sufficient reason for amputation, and remember that I have myself seen a person narrowly escape amputation of the hand in consequence of wound of the palmar arch, I cannot but think I am justified in offering to your consideration this method as an illustration of conservatism in surgery. If you consider this account tedious and unnecessarily long, I must express my regret; but as this mode of staying the flow of blood from bleeding arteries is only just mentioned in the last edition of Mr. Erichsen's *Science and Art of Surgery*, and not even alluded to in Mr. Holmes's, the most complete and popular systematic works on surgery of the day, it seems that some account of my own experience of the effect of position might not be altogether uninteresting.

A more remarkable example of abstention from the knife is to be found in the

PRESSURE-TREATMENT OF ANEURISM.

Sir William Fergusson remarks that when Hunter tied the superficial femoral for the cure of popliteal aneurism, he performed a great act of conservatism but modern surgery has acquired in the same direction results still more important and more beneficial to humanity; aneurism of nearly every artery in

the body, including the carotid, the subclavian, the iliacs, and the aorta, having now been cured by pressure. The old or slow pressure method was an advance upon the ligature; but what I believe was first named by myself—the “rapid pressure treatment”—must be considered to be in some respects even a greater improvement upon the older plan.

The rapid pressure treatment may be considered but the natural development of the older method, and, like many other triumphs of modern surgery, owes its practicability to chloroform. Having been, myself, somewhat concerned in its introduction, it would not become me to speak too strongly in laudation of it.

I should rather leave to those who best know what dangers encompass him who is submitted to the knife and the ligature—the shock, the suppuration, the erysipelas, the pyæmia, the gangrene, and the secondary hemorrhage—the appraisal of a measure which, after a few hours' sleep, leaves the awakened patient free from his disease, with no wound to heal, no further risk to run, and to say whether any surgical proceeding ever more truly deserved the application of the old maxim—*Cito, tuto, et jucunde*.

THE SUCCESS OF MODERN SURGERY.

There remains to be considered the last of the characteristics which I have attributed to modern Operative Surgery, namely, its success.

It is in one sense a matter of indifference to what part of Operative Surgery I turn for illustrations of its success; they abound everywhere. They might be found in the subjects we have already treated; or I might take to choosing at random some special department, say the orthopedic,

ORTHOPÆDIC SURGERY,

and adduce the wondrous metamorphoses produced by its agency in proof of my position—the variously twisted and useless feet opened out, straightened, and made serviceable; the withered bent limbs made strong and shapely; the hideously distorted trunks conformed into symmetry; transformations worked with a perfection, a facility, and an absence of pain to the patient which seem little short of miraculous when we look at the condition of this branch of our art some forty or fifty years ago;—transformations, too, not now confined to some special metropolitan hospital, but which may be undertaken by any provincial surgeon who understands his business. I might describe the mechanical apparatus, so nearly perfect, constructed upon scientific principles, and adapted with careful design to each particular deformity, and which greatly assist the surgeon to overcome difficulties and enable him to complete the transformations, toward which the division of tendons is only the first step. Here, too, I might refer to an aspect of our art most interesting to study—the moral effect produced by

raising a misshapen, halting creature to the condition of a straight and well-proportioned man—an aspect which brings mechanical art into a close and remarkable relation with the subtle and mysterious problems of psychology. I prefer, however, as more in consonance with my design, to take examples from fields which have been more generally cultivated, and for a longer period, by the great body of the profession, and from operations which contain in themselves all the essentials of treatment independent of the assistance of the mechanist.

LITHOTOMY.

The operation of cutting for the stone, for instance, furnishes an example of this description. There have always been individual operators who have been remarkable for their success in cutting for the stone; thus twenty, twenty-five, thirty, as many as forty persons have been cut in succession by different surgeons without a death; but such examples would not serve the purpose I have in view, which is to show the success of modern Operative Surgery in this operation, not the skill of any individual. Let us take, then, the lithotomy operations performed at any provincial hospital throughout a series of years, and distributed among several different surgeons—say, for instance, the Newcastle Infirmary. In this institution, between the years 1859 and 1869, included, lithotomy has been performed in sixty-four cases, and of this number two operations only have been followed by fatal results. These sixty-four operations occurred in different proportions in the practice of six different surgeons, who, during the time stated, have held office at the infirmary for longer or shorter periods. The ages of the patients varied from 2½ years up to 70, both of these extremes being among the successful cases; 29 were 10 years of age or under 10; 16 were upward of 40 years old. Of the two fatal cases one was 38 years of age, the other 52. The average time between the operation and the date of dismissal from the infirmary was 28 days. The operation performed was the ordinary lateral one, which, introduced by Cheselden and modified by Liston, is that, I believe, most usually practiced by British surgeons.

These cases, then, were not of an exceptional character, but in every way examples of the ordinary kind of cases which may be expected to occur in hospital practice; they were not in an unusual proportion of the most favorable age; they were not all in the hand of one operator, who might be supposed possessed of unusual skill; nor did they come under treatment during one particular short period, when for some special reason it might be thought that a run of favorable cases might occur; and they were operated upon in a provincial hospital, where we do not arrogate the possession of unusual skill or success. We may therefore fairly assume that the results give us at least an

approximation to the average success which the operation of lithotomy had attained at the period of their occurrence.

The ordinary rate of mortality after this operation, as calculated from a large number of cases, not confined to recent years, is stated by Coulson and others to be about one in seven. Sir William Fergusson states that, out of fifty patients under 15 years of age cut by him in the whole course of his experience, two died. This is above the average of success given by Coulson for the same age, but it must be considered below the rate of success of the Newcastle Infirmary for the time stated, the operations at this institution being on persons of all ages.

If, then, I am correct in putting forward these cases as representing an approximation to the average results of modern lithotomy, it must be conceded that they constitute good illustrations of the success of modern Operative Surgery.

It has already been stated that the operation performed was the ordinary lateral one, and I am not aware that there was any peculiarity in the way in which it was carried out by any of the operators; with the exception that, in some of the operations on children, performed by myself, the stone was removed by the finger alone introduced into the bladder, and without the employment of forceps; nor was there any peculiarity in the after-treatment pursued. The instruments used were of the simplest description—the usual laterally grooved staff, sharp-pointed lithotomy scalpel, and forceps.

The success of the modern operation of lithotomy may be attributed in part to this simplicity of the instrument used; in part to the greater gentleness with which in modern times we employ our tools, particularly the forceps, so that we avoid the pulling and hauling with both hands, the violent movements of instruments from side to side, which in former days were not unfrequently witnessed, and the consequent bruising of the neck of the bladder and other structures, proceedings fraught with dangers which I need not enumerate; and greatly also to the use of chloroform, by which the operation is robbed of more than half its terrors; and thus patients are encouraged to seek relief from their pain at an earlier period than formerly, and whilst the urinary organs are still not seriously affected by disease.

The modern procedures for the relief of strangulated rupture, for the extraction of cataract, and of ovariectomy, will afford us equally notable examples for the success of the operative surgery of the day.

STRANGULATED HERNIA.

By the modern operation for hernia, I mean especially the operation without opening the sac, perhaps the most satisfactory and successful pro-

ceeding in the whole range of surgery, aiming at so splendid a result as the rescue of a life from imminent danger. The operation, when the sac is opened, is itself much more successful in the present day than it was thirty years ago, being usually put in practice after a much shorter period of strangulation, and followed by a more sensible and rational after-treatment; but the operation without opening the sac is, I believe, as absolutely certain of success as any proceeding can be. I can remember when the result of herniotomy was considered so doubtful that every device was had recourse to to avoid it, from the injection of tobacco to placing the patient on his head, or trundling him down the street on a barrel; and I have heard a physician of great repute condemn the proceeding altogether as dangerous and unnecessary, asserting that the strangulation might always be relieved by repeated doses of calomel.

It is not astonishing that the result was uncertain when we consider the mode of operation not unfrequently adopted in those days. After a long and dangerous period of strangulation, we had an external incision running the whole length of the hernial tumor, followed by a painful, tedious dissection, occupying sometimes the better part of an hour, layer by layer, down to the sac; this reached, it was opened to an extent commensurate with the external incision, and its contents assiduously manipulated, probably by more than one pair of hands, to ascertain the condition of the bowel; the stricture was then divided, the knife being passed in dangerous proximity to the bowel, which occasionally has been wounded even by the best operators; and when the operation was over, the surgeon was not satisfied until the maimed and bruised bowel had been further tortured by purgatives and coerced into unnatural action.

How different is the modern proceeding! A small cut less than two inches in length is made over the neck of the sac; a little dissection with the handle of the knife or the finger-nail reveals the edge of the ligamentous structure; a few fibres are divided; gentle pressure is made upon the sac, which may not even have been seen; the bowel slips up, and all is over. The whole business does not occupy ten minutes; an opiate is given, and the surgeon has no further anxiety about his patient.

I know it may be said that this method cannot always be adopted; and indeed, in looking over some recently published cases of herniotomy, I must acknowledge to have felt some surprise at the frequency with which the sac has been opened.

It has fallen to my lot, as indeed to that of most operators, to operate in such cases pretty frequently; and for the last fifteen years I have rarely found it necessary to open the sac. Unless, indeed, there be some special reason for doing this, such as the

great length of time during which the rupture has been down, the manifest pressure of a large mass of omentum, or indubitable signs of change in the bowel, such as emphysema, putrid smell, or the like, I invariably attempt the reduction without opening the sac; and, according to my own experience, the test of the propriety of the proceeding is its practicability, for I have never in my own practice known a fatal result where the sac was not opened.

EXTRACTION OF CATARACT.

By the modern operation for the extraction of cataract, I mean the method—by whatever special name we call it, whether scoop-extraction, or Schuiff's operation, or modified flap-extraction; whether the iris is touched before or after the extraction of the lens, immediately before or some time before, which consists essentially in a comparatively small incision through the cornea, the removal of a portion of the iris and extraction of the cataractous lens by gentle manipulation, aided by spoon, curette, vectis, or other similar instrument, diversely employed; for I take it the same principle pervades all these methods, however they may differ in minute details. I claim for these modern operations, although each may be more particularly applicable in special cases, a greater and more uniform success than belonged to the old flap-operation.

I acknowledge that nothing can be more brilliant and striking in its performance, nor more excellent in its result, than a perfectly successful flap-operation after the old mode. After such a proceeding, when entirely successful, there is a scarcely perceptible cicatrix, a transparent cornea, an un mutilated iris, an undisplaced, round, central, clear, black pupil, and consequently sight as perfect as is possible after the removal of the lens. But then, how frequently does this perfect and complete result ensue? We must confess but rarely. How often, on the contrary, are the hopes of the operator disappointed even when all goes well at the operation! How often do we find that the edges of the wound become separated, that part of the iris protrudes, that the healing is delayed, and that ultimately there is a partially disclosed or distorted pupil, with broad cicatrix, and more or less imperfect sight!

In the modern operation, although the pupil is necessarily somewhat misshapen, we can yet reckon with considerable, if not absolute certainty, upon a result so far successful as to give good useful sight. Although, then, the old operation in exceptional cases gave a result which left nothing to be desired, the new operation gives a more universal and assured success.

OVARIOTOMY.

I need not detain you by any lengthy reasoning to show the success of ovariectomy in recent times.

You know that, from being looked upon as one of the most fatal performances a surgeon could undertake, from being stigmatized by some of the greatest men as a frightful butchery, it has risen to take its place as a well-recognized proceeding—more successful than some older and long established operations. It is, indeed, emphatically one of the most brilliant examples of the success of modern Operative Surgery.

GENERAL REMARKS.

These three operations do not, at first sight, appear to bear any close resemblance to each other, being undertaken for very different purposes, and one taking place in a little world, as it were, apart from the rest of the body. Yet a brief examination will show that they possess some features in common; and, although each may depend for its success upon some particular proceeding more or less special to itself, will enable us to discern certain principles common to all three, greatly influencing their favorable termination. Thus, in all three operations, a serous cavity containing important structures is more or less involved, and each may fail by reason of inflammatory action destroying or impairing the functions of these structures; or, as in ovariectomy and hernia, by reason of other serious consequences, to which procedures affecting such regions are more particularly liable.

The operation, without opening the sac, manifestly owes its success mainly to the fact that the peritoneum is not opened, and to the consequent exclusion of air, blood, or other contaminating fluids from the abdominal cavity; but the small size of the external incision, as compared with the importance of the structures actually divided, and with the still greater importance of those indirectly affected, is also not without great influence, as well as the trifling amount of bleeding and consequent absence of blood within the external wound.

The modern modes of extracting cataract are less frequently followed by unfavorable results, mainly because the removal of the iris prevents prolapse of that structure between the lips of the wound, and consequent delay in healing, morbid changes in the cornea, and contraction of the pupil; but also because the limited size of the corneal wound prevents loss of vitreous humor, excludes air from the anterior chamber, assists generally in preserving the integrity of the eye, and allows more rapid healing; while the entrance of blood into the chamber is always an accident to be deplored, and sometimes injuriously affects the result of the operation. And in ovariectomy, although special circumstances affecting either the tumor or the patient exercises undoubtedly great influence over the result, nevertheless I conceive that this remarkable operation, which does not really require great operative skill or extraordinary manual dexterity, and which not

unfrequently succeeds under apparently unfavorable conditions, as when adhesions exist, or when the patient is reduced to a condition of extreme weakness, is most likely to have a favorable termination where the wound in the abdominal parietes is small, four inches or less in length; when the time occupied is comparatively short; where the abdominal cavity and its contents have been little exposed to the air; and where in particular neither blood nor other fluids have entered in any quantity or remain in the abdominal cavity. Ligatures, whose material seems almost a matter of indifference—wire, catgut, or hemp—may remain with impunity, but not blood, at least in any quantity.

Here, then, are certain common principles greatly affecting the success of each of these different proceedings. 1. The limitation of the external wound, as compared either with the magnitude of the part to be removed, or the importance of the deeper structures involved, or the greatness of the result to be obtained, or, in other words, the approximation of the operation to a subcutaneous wound. Herniotomy without opening the sac, and the new operation for cata-ract, may be really regarded as equivalent to subcutaneous operations; whilst the small opening in the abdominal wall, through which the enormous mass of disease is drawn, really gives to ovariectomy a certain approximation to that form of proceeding. 2. The exclusion of air from the wound itself, or from the serous cavities involved. 3. And last, but not least important, the exclusion of blood from the wound itself, or from the cavities involved. Although these principles may be considered specially important in such cases as these, where a serous cavity is implicated, we have constant opportunities of observing their importance in operations generally. Indeed, it is natural to infer that the principles which, carefully carried out, lead to the success of such an operation as ovariectomy, should also powerfully affect the success of proceedings upon less important structures.

In the excision of joints, as now performed, as well as in the extirpation of growths from the bones of the face, we have examples of the limitation of external incisions. This principle, quite distinct from conservatism, not only favors rapid healing and diminishes deformity, but also, by covering in raw surfaces more effectually and permanently, diminishes the risk of entrance of air into wounds.

Amputation by anterior flap, though not an example of the limitation of incision, shows the good effect of the complete covering in of raw surfaces. There is a cast here of another stump left after amputation of the knee-joint, where a posterior flap was formed. The flap was amply sufficient to cover the bone at the time; but, primary union not taking place, the flap gradually slid down, leaving a raw surface uncovered. Healing was long delayed, and

the patient was necessarily exposed to many risks which I need not enumerate.

The importance of the exclusion of blood from wounds left by operation can hardly be overrated. Every amputation of a limb, or removal of a tumor or diseased breast, affords an example of the impossibility of affecting rapid union where blood or bloody serum is allowed to collect between flaps or in the cavity of a wound; and the danger of septicaemia from such a cause in the early days of an operation will be recognized by every one. The application of torsion to bleeding arteries will greatly assist us in carrying out this principle; and the exclusion of air has been considered a matter of such importance that a variety of means have been employed to effect it, which I can only allude to here, such as the water-bath used in Berlin, and the *appareil pneumatique* at the *Hôtel-Dieu*. But, without employing any such special apparatus, by the management of our preliminary incisions, and by methods of dressing, with or without antiseptics, much may be done to effect this important end.

In the foregoing observations I have endeavored to demonstrate the increased success which attends modern operations, and at the same time to trace out some of the principles which tend to that success, such as the management of primary incision so as to limit the external wound, approximate it to a subcutaneous wound, and facilitate the covering in of raw surfaces; the concurrent principle of exclusion of air, with or without the assistance of antiseptics; the exclusion of blood, with the consequent increased immunity from blood-poisoning; and the use of chloroform, which brings our patient to the operating-table so much earlier, and before secondary diseases have arisen, lessens shock, and facilitates all our proceedings. In addition to these there is another of totally different character, which must not be overlooked; this is the greater diffusion in the present day of operative skill throughout the surgical profession.

OPERATIVE SKILL IN THE SURGICAL PROFESSION.

It is greatly to the improved education, which places at the disposal of the student the means of learning the use of his hands, that this increased amount of operative skill is owing. The time is not so long passed but that some here may remember it, when the student of surgery might be said to have been taught everything but surgery; how to write in Latin; how to make chemical experiments; minute and transcendental anatomy; intricate questions in physiology, and many other things. But the one thing which more than any other he would be called upon in actual practice to do—namely, to use his hands, he was not taught. He attended lectures, indeed, upon the principles of surgery, and, if his inclination lay toward practical surgery, he

might gather some knowledge of it in passing through the wards of hospitals, and in the operating theatre; but he was not put through any systematic course of teaching by which he might learn how to use a knife, how to put on a splint, or even a bandage; and he might pass, as many a student absolutely did pass, into the ranks of the profession a highly educated man, full of professional learning, and yet totally unversed in the practical proceedings to be adopted in the simplest cases to which he might be called.

How completely all this is changed in the present day I need not tell you. You know that in every medical school and hospital, by means of systematic courses of lectures; by means of clinical teaching; and by means of dresserships and other appointments, every opportunity is afforded to the student of educating his hands, his touch, his muscular sense, and of familiarizing himself with proceedings in which manipulation is required. Hence, although it may be in some degree true of the surgeon, as of the poet, that "nascitur non fit," nevertheless, men do now enter upon their active professional life infinitely better prepared, and more likely to make good and successful operators than they did in former times.

The interchange of knowledge, by means of the periodicals of the day, the rapidity with which a new and improved proceeding or a brilliant operation becomes known throughout the profession, tends also to the general level of our success; and, moreover, I will venture to say that an association like this, which gives to us obscure provincials the opportunity of seeing and hearing the brighter luminaries of our time, and brings vividly to our mind, every advance which from year to year may be made in our art, exerts a more potent influence upon the origination and spread of improvements and upon the upraising of the general standard of professional power than has yet been recognized.

Reviews and Book Notices.

NOTES ON BOOKS.

We have received from E. LLOYD, 30 Cortland street, N. Y., one of his great War Maps of Europe. As we read about the great and terrible battles being fought between the French and Prussians, we naturally wish to fix our eye on the spot. Here is our opportunity. Fifty cents unmounted and \$1.25 mounted and varnished, is the very low price of these maps, which include the whole of Europe.

The Hours at Home.—We are sorry to say we are going to lose, not the Magazine, but the name. We must say that we think it a mistake to change it to "*Scribner's Monthly*;" but that seems to be the tendency now, and we will submit if the Maga-

zine maintains its excellence. And why should it not, as Dr. J. G. HOLLAND, "*Timothy Titcomb*," is hereafter to be the editor? This is one of the best Magazines that comes to our table. Long may it continue so. This is hereafter to be an illustrated Magazine. SCRIBNER & Co., 654 Broadway, N. Y. \$3.00 a year; \$2.50 with the REPORTER.

Every Saturday has taken high rank as an illustrated paper. It is profuse in its illustrations. Not satisfied with the ordinary space generally devoted to illustrations, it issues each week a single or double cartoon. The number for Sept. 10 is a very fine one. It contains several European war pictures; portraits of Mlle. SESSI and Mr. GEORGE W. CHILDS, of this city; summer pictures, etc., etc. Fields, Osgood & Co., Boston, Mass. \$5.00 a year; \$4.00 with the REPORTER.

BOOK NOTICES.

Medical Diagnosis with special reference to Practical Medicine. A Guide to the Knowledge and Discrimination of Diseases. By J. M. DaCosta, M. D., Lecturer on Clinical Medicine; Physician to the Pennsylvania Hospital; Fellow of the College of Physicians of Philadelphia, etc., etc., etc. Illustrated with Engravings on wood. 3d Edition, Revised. Pp. 844. Philadelphia: J. B. Lippincott & Co. 1870. Price, \$6.

Dr. DACOSTA's work has been before the profession for several years, and has become, in this country, an accepted authority on the subject of medical diagnosis. Dr. DaCosta being a practical physician of experience, it is a little surprising to us that he does not more frequently make use of cases that have come under his own observation to illustrate his text. Yet, with characteristic modesty, while he refers to cases published by other practitioners, many of them of far less experience than he has had, he studiously avoids reference to his own cases, in the hospitals of this city, numbers of which, for several years past, have been faithfully reported for the pages of this journal and published, after having passed under his own supervision. We find but a single instance in which this valuable material was made use of. A little of his experience, as published in the *American Journal of the Medical Sciences*, is referred to, but on the whole, we think our author does not in his work do himself justice as an observer—and there are few superior to him—by making use of his own recorded experience; and to this extent we believe he has allowed himself to detract from the value of his book. Nevertheless, the work is of exceeding great value to the practical physician, and must for a long time supply the wants of the American practitioner in this line. After a while some one else will write a work on medical diagnosis, when justice will be done to our present author, who is perhaps the best living diagnostician.

The publishers have issued the work in excellent style, in good, large type, on tinted paper.

MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, SEPTEMBER 10, 1870.

S. W. BUTLER, M. D., D. G. BRINTON, M. D., Editors.

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THE BRITISH MEDICAL ASSOCIATION.

Like our own American Medical Association, the British Medical Association is a great, almost unwieldy body. It met, this year, to hold its 38th annual session, at Newcastle, on the 9th of August, the sessions continuing from day to day till the 12th. There were over 300 members in attendance. The retiring President was Dr. CHADWICK, of Leeds, and the new one, Dr. EDWARD CHARLTON, of Newcastle. Both gentlemen addressed the association. The business sessions were somewhat marred by the inopportune presentation of some points of medical—not, we believe, national—politics, first, by the retiring President, and then by two prominent members, in moving votes of thanks. There was very decided difference of opinion in regard to a medical law which had been before Parliament, and which was defeated by the action of the Medical Council. However, this is not a subject that interests us now, as we have no national medical laws, except such as bear on the examination and appointment of medical officers of the army and navy. We are too democratic in this country to have medical laws granting "exclusive privileges." Some of our States have had excellent medical laws for the protection of the community against pretenders, impostors, and incompetent practitioners of medicine, but they have not generally survived the onslaughts of the class of men on whom they placed restrictions. We have had troubles having their origin in national politics, but our British friends have theirs in medical politics.

The sociable element played an important part in the meetings of the Association. As with us, the afternoon sessions were devoted to meetings for the reading of papers and discussions in the scientific sections. A great many very valuable papers were presented.

A feature of the meeting which has not yet entered into those of our association—though there is a possibility that it may—as matters seem to be tending in that direction, was the discussion of matters connected with the management of the weekly medical journal published under the auspices of the association—the *British Medical Journal*. A report was made on its financial affairs, and a new editor appointed. The transactions of the association are published in this journal, as are also those of the branch associations throughout the kingdom. Of course all the papers presented can-

not find place in the journal, and this led to a discussion as to the propriety of reviving the publication of a volume of Transactions, either annually or less frequently. The financial problem, however, prevented any steps being taken in that direction at present, as it was made evident that the association could not support its journal and publish a volume of transactions too. The better papers, however, will probably all appear in time, in the *British Medical Journal*.

At the annual meetings of the British association addresses are read in medicine and in surgery, giving an outline of the progress of these branches during the year. We shall give our readers the material portions of these addresses. The one on surgery is very complete. That on medicine is much more restricted, and disappointed us.

There are ideas in connection with this meeting that are worthy of thought, as to whether some of them might not be adopted with advantage in our own association.

Notes and Comments.

Death of Dr. Bedford.

Just as we are going to press the telegraph informs us of the death of that eminent obstetrical writer and teacher, Dr. GUNNING S. BEDFORD, of New York. In our next we shall give a more extended notice of him.

Reorganization of the Medical Society of Virginia.

We learn that the Lynchburg Medical Association has taken the initiative to hold a Convention, of the faculty of Eastern Virginia, at Richmond, November 2nd, 1870. A circular of invitation has been issued to the members of the profession to co-operate, and ensure a reorganization of the State Medical Society.

The Americans in Paris.

The *British Medical Journal* says: We learn by private letters that the American residents in Paris have shown the most active sympathy with the country in which they reside during its reverses. Large subscriptions have been made, and a special and fully equipped American Ambulance Corps has been formed provided with all the *materiel* of hospital and field use. It has placed itself at the unreserved disposal of the French war department in a completely organized condition. The following is the surgical staff of the American Ambulance

Corps: Surgeon-in-Chief, Dr. J. Marrior Sims. Surgeons, Dr. T. T. Pratt, Paris; Dr. McCormac, Belfast, Ireland; Dr. May, Baltimore, Maryland; Dr. Tihlman, Baltimore, Maryland; Assistant-Surgeons, Dr. Aubin, Jersey; Mr. Haydon, Boston; Mr. Samson, Paris; Dr. Crane, Paris.

The Medical Profession in Germany.

The *British Medical Journal*, August 20, says: The letters which we receive from Germany from professional sources describe the German medical men as overworked in the extreme, as they have to attend to the wounded of the enemy as well as their own. All the ablest men of the great towns are with the army moving, and without either much chance or inclination to correspond. Every large place, either on or near the Rhine contains one or several lazarettos, and many private houses have been devoted by their proprietors to the reception of the sick and wounded during the time of war. Some of the pleasant watering-places of Nassau are now large hospitals, or rather consist of a series of temporary hospitals; and the medical men of the Spas give their assistance without remuneration. A sub-committee of German medical men in London advise the German Aid Society here as to medical matters; and we are informed that they have spent already over \$20,000 for water-cushions, water-proof sheeting, lint, surgical instruments, carbolic acid and chloroform. They have sent also twenty tents with two hundred beds complete, and are about to send the same again. Including relief in money, they have spent already about \$95,000.

The Prussian Field Arrangements.

The *British Medical Journal* quotes a correspondent of the *Daily News*, who writes: "The more I see of the arrangements of the army, the more I am impressed with their absolute perfection. There is a thoughtfulness and care which descends into the most minute details. For example, each soldier carries in his knapsack some lint and a bandage, so that when he falls the surgeon can instantly run up, open the knapsack, and apply a bandage. A certain number of tourniquets are also carried by the non-commissioned officers of each regiment; and although in the heat of a pitched battle the non-commissioned officers could not stop to apply tourniquets to the wounded, yet, as a proportion of these also fall, the instruments are always at hand for the surgeons; and in the skirmishes, or in regiments not exposed to the full brunt of a conflict, there will yet be a certain number of wounded, many of whose lives, which would otherwise be lost, may be saved by the prompt application of a tourniquet or bandages. Round each man's neck as he goes into action also is a eard, upon which is his

name. As he falls, the surgeon who examines and binds up his wounds, sees at once whether it is of a nature which will permit of the patient being moved to a distance or not. According to its severity, then, he writes on the card whether the man is to be taken to the field-hospital close at hand, or to the hospitals further in the rear. Accordingly, when the ambulance arrives, it is seen at once where the wounded man is to be conveyed. In the hospitals they have an admirable arrangement for keeping the wounds cool. Bottles, or rather bags, made of very thin India rubber, and with wide mouths, closing with corks, are filled about half-full with water, so that the bag lies loosely upon the wound.

Correspondence.

DOMESTIC.

Bromide of Potassium in Small-Pox.

EDS. MED. AND SURG. REPORTER:

I was requested, in the middle of a stormy night last winter, to visit a sick child, four miles in the country. On my arrival I found the patient, a boy of four years old—usually stout and hearty—in the midst of a fever of the most intense character, extreme agitation, and great complaint of the most agonizing headache. I was not in haste to announce a diagnosis, as the symptoms were not sufficiently numerous and definite for me to become fully satisfied as to the nature of the malady; consequently, I prescribed a mercurial cathartic and a glass tumbler full of the solution of *bromide of potassium*, the latter to be given every two hours until the patient should sleep; repeated when again awake, if the agitation and headache were yet present.

I returned home, with the understanding that I would be called on the following morning if the boy was not better; I heard no more from the case until several days had passed, when I learned that "Wheeler's family had the small pox!" I concluded that they had had recourse to the advice of some other physician in the meantime, and so thought little more of the matter. Two weeks later I was hastily summoned to see three more of the family, all attacked and suffering like the little boy, whom I now found to be completely covered from head to foot with the scabs of *small pox*. The history of the case after my first visit was now given me by the parents, to the effect that the "medicine left in the glass" had produced quiet and sleep in the little boy very soon after I left, and that he seemed to do so remarkably well under its use, that they continued it as long as it lasted, although he broke out in every few hours after my visit—

and that throughout the two weeks he had progressed without apparent trouble.

The three new cases were treated exactly in the same way, one of the patients being an adult female—the others children, and although the cases proved of the severe confluent form, they all recovered nicely and in due time, the "bromide" giving the same relief to the initiatory symptoms as in the first case. I don't know whether or not the remedy had much to do in the often good results in these cases, but I am very sure that it had a most marked and wonderful effect in modifying the intense febrile and nervous excitement which constitutes so great a part of the sufferings in this fearful malady.

Another point or two in connection with these cases is, that the young woman spoken of above as an "adult," had been thoroughly vaccinated a few years ago, as the ample scar on her arm testified; yet she had a severe case of *confluent variola*! I had myself been vaccinated on several occasions some years ago, and with virus of the best quality, but I could never get a sore. Meeting with these cases appealed very strongly to my sympathies in regard to self-preservation, so I hurried away the next morning after my second visit and procured some genuine "eighth day lymph" from the arm of a healthy child, and vaccinated myself and re-vaccinated my children and my wife who was pregnant in the seventh month; the wife did not meet with a premature delivery, although the matter made her arm quite sore; the children each had good pustules on their arms as I also did, and on the *twelfth day* from seeing the scabby boy—six days after vaccination I was in bed with fever and *speckled with varioloid*!

This shows clearly, 1st, That a good scar is sometimes very little protection, 2d. That vaccination does not *always* produce miscarriage; 3. That re-vaccination often takes vigorously; 4. That vaccination will take when it has often before proved a failure; 5. That the poison of *vaccina* anticipates that of *variola*, though the exposure be at the same time; or the vaccination performed fifteen hours after exposure to the variolous contagion; 6. That the disease is not contracted from the disease prior to the eruption; 7. The extreme sanitary influence of pure country air in the disease, as many of the people in the vicinity were in immediate contact with the little boy waiting on him, etc., and not one caught it; 8. That the *Bromide of Potassium* is worthy of an extended treat in *small-pox*.

J. P. CHESNEY.

New Market, Md., Aug. 10, 1870.

Uterine Supporters.

A correspondent recently inquired through the columns of the REPORTER as to the best form of uterine supporter. Much, of course, must depend

on the nature of the case, but the following extracts from correspondence speaks very favorably of Babcock's Silver Uterine Supporter.

Dr. T. L. PAINTER, of Liberty Hill, Virginia, writes :

The first instrument produced such favorable results in a case of retroversion of the womb that I was led to try the second in a like case.

Case first had been an invalid for three years ; not able to sit up or walk without assistance ; now walks in the house anywhere, up stairs, etc., out in her garden, sits in the buggy and rides ten to twenty miles ; visits her friends with impunity.

Case second, had been confined *strictly* to her bed for sixteen months ; could not sit up long enough to have her bed dressed. She is now walking in and about the house ; riding on horseback and in a buggy, without suffering pain.

Both my patients had the usual distressing symptoms, many of which have altogether subsided, and others (I feel safe in saying) will, on the continued use of the instrument.

I can, so far as my experience with the instrument goes, highly recommend it to the profession as the one we have always needed for the cure of displacement of the womb.

Dr. C. HAMILTON PETERS, of Logansport, Indiana, says :

"I have used the Silver Uterine Supporters several years, and they give universal satisfaction. I have performed many cures that at first seemed almost impossible. I have recommended them to numerous physicians who have since used them, and have not heard one objector. There was an old lady in Pickaway County, Ohio, under treatment of Drs. J. B. and R. J. D. Peters, who had worn the old fashioned pessary, (two of the largest kind) for eleven years without having them extracted. The result was that she had discharge from vagina—that she was not expected to live. The old pessaries were removed and Babcock's Supporter substituted. She was put on proper treatment and is now well.

Another old lady in the same vicinity, who could not walk was entirely cured, and is at this writing well.

Dr. J. B. PETERS corroborates the above statement.

NEWS AND MISCELLANY.

Small-pox on the Franklin.

PROMPT RECOGNITION OF A FAITHFUL OFFICER.

We find the following account of the small-pox on board the Franklin, and the creditable conduct of Surgeon TURNER, and his public recognition, in

the newspaper dispatches from Washington, September 1st :

The Fleet Surgeon of the European Fleet, in a letter to the Navy Department dated August 8, says : The ship Franklin sailed from Lisbon on the 18th of June for Flushing, Holland, with a crew numbered 507 men, all in good health. On the 26th of June, eight days out, one of the crew, who had not been out of the ship at Lisbon, and who had an excellent vaccine scar, was admitted on the sick list with fever. The true nature of his disease was not discovered until the second day after his admission. He was then placed on the after part of the gun-deck. Sentinels were placed to prevent the approach of any of the crew, and men selected who had had the small-pox to attend upon him. On the 17th of July, 60 days after the transfer of the first case to the hospital, and 19 days after his seizure, another case appeared, and was immediately sent to the Quarantine hospital at Flushing. On the 18th seven more cases occurred ; on the 19th, 16 additional cases were sent, and the ship was placed by the health authorities under strict quarantine. Other cases followed from day to day until June 25, when the total number reached 58. Since then no new cases have occurred. The ship was relieved from Quarantine on the 2d of August. There were 15 cases of confluent small-pox. The remainder were in many cases very severe. Of the confluent, five died. Many of the 25 in the hospital are very feeble, but all are convalescent. This disease has been epidemic in many places in Europe during the present season, but the fleet surgeons had hoped the vaccinations would prevent the disease on board the ship.

He mentions the handsome conduct of Surgeon Thos. J. Turner of the Juniata. Hearing at Antwerp of the outbreak of small-pox on board the Franklin, and knowing the deficient number of medical officers, he immediately volunteered to assist, and was permitted to do so by his commanding officer. He reached Flushing on the 25th, and since that time has been unremitting in his attention to the sick, and but for his untiring devotion, it is believed by the fleet surgeon, the mortality would have been greater. Assistant Surgeon George O. Allen was also very attentive and zealous. Capt. C. P. R. Rodgers has visited the hospital daily, and his fearless exposure had a most excellent effect in allaying everything which would produce a panic among the men.

Rear-Admiral Radford, in a letter to the Department, dated Flushing, August 8, especially calls the attention of the Secretary to the praiseworthy conduct of Surgeon Turner, in hastening to the relief of the sick, and assiduously devoting himself to their care and comfort. The Secretary thus recognizes the surgeon's services.

NAVY DEPARTMENT, WASHINGTON, Aug. 31, 1870.

SIR: The Department has received and noted with great pleasure the special reports of Rear-Admiral Radford the Fleet Surgeon of the European Squadron, in relation to your very meritorious and valuable conduct and services during the prevalence of the small-pox among the crew of the Franklin, while lying at Flushing, Holland. The devotion exhibited by you in leaving the routine duty of your own ship and volunteering for this important and dangerous duty, and your marked attention and efficiency in the discharge of it deserve and will receive the sincere commendations of the service and of the country; and such conduct and devotion is found in the true glory of your profession and the highest dignity of its members. You will please accept herewith the thanks of the Department and the assurance of my personal appreciation and regard.

Yours, very respectfully, GEO. M. ROBESON,
Secretary of the Navy.

Surgeon Thos. J. Turner, U. S. Navy, U. S. Steamer Juniata, European Fleet.

Philadelphia School of Anatomy.

This institution, so long and favorably known to many members of the profession, is now in the hands of Dr. W. W. KEEN, who has been known for some years as an enthusiastic student in anatomy and physiology. Dr. KEEN has a number of assistants, who devote themselves to different branches of medical instruction. He will lecture during the winter on Anatomy and Operative Surgery, and Dr. O. H. ALLIS on Bandaging, Fractures and Fracture Dressings.

Personals.

For many of the following items we are indebted to that excellent college paper the *College Courant*, published at New Haven by CHATFIELD:

—PROF. HEMHOLTZ has left Heidelberg for Berlin, to occupy the position left vacant by the death of Magnus, but with the title of Professor of Physiology.

—MR. EDWIN S. MORSE, of Salem, Mass., who was recently elected non-resident Professor of Comparative Anatomy and Zoölogy, in Bowdoin College, begins his duties with the spring term.

—DR. HERING, of Vienna, is the successor of the late PROF. PURKINJE, in the Chair of Physiology, in the University of Prague. The position was offered first to PROF. HEMHOLTZ, who declined to leave Heidelberg.

—DR. JOHN SLOAN, of New Albany, Ind., has been tendered the professorship of Surgery in the Louisville Medical College.

—DR. SILAS H. DOUGLASS has been appointed Professor of Chemistry and Mineralogy, and Director of the Chemical Laboratory; and Dr. ALBERT B. PRESCOTT, Professor of Organic and Applied Chemistry and Pharmacy, in Michigan University.

—The venerable Dr. WILLIAM JAMESON, of Quito, Ecuador, for thirty years connected with the mint and university of that city, and well known to botanists for his researches on the Andes, has gone to Valparaiso, to spend the remnant of his days. The third part of his *Synopsis Plantarum Ecuatoriensium* has just been published.

—DR. LEONARD MARSH, of Burlington, Vermont, who died recently, was a man of rare scholarship and ability. The field of his studies extended over a wide circuit, embracing notable philology, theology, politics, and the natural sciences. He had been for fifteen years a professor in the University of Vermont, first as professor of Greek, and afterwards of Botany and Physiology.

—M. CLAUDE BERNARD has been elected a member of the Imperial Council of Public Instruction in France, for the year 1869-70.

—DR. ROBERT THOMPSON, the well known physician and surgeon of Dover, N. H., who for twenty-five years past has ministered for all the ills that flesh is heir to, with remarkable success, died last week, aged 62.

—Eight cents is all the doctor's fee the law allows in China.

WORDS OF CHEER.

Dr. J. A. T., New York, writes: "The weekly arrival of your journal is anxiously awaited, and I would not dispense with it for double its price. I consider it far superior to any other journal published in this country."

Dr. J. P., Pennsylvania, says: "Permit me here to say I would not be without the *Reporter*, and the *Compendium* is incomparable."

QUERIES AND REPLIES.

Dr. J. C., Ohio.—We can supply the numbers you want, viz., 459, 528, 517, 601—price 40 cents.

Dr. G. A. S., Ohio.—The price of Hodge's *Obstetric Forceps* is \$7. We can send them by Express.

MARRIED.

SCOTT-GILFILLAN. In McIndoes Falls, Vt., August 17th, by Rev. M. B. Bradford, C. W. Scott, M. D., of Lyndon, and Lizzie Gilfillan of the former place.

DIED.

BICKNELL. In Hanover, N. H., August 21, Mrs. Emily L. Bicknell, widow of the late Dr. Rufus Bicknell, of West Philadelphia, aged 59 years.

DAVIS. At Gibsonburg, Pa., Aug. 25th, Alfred E., only child of Dr. Sumner D., and Nellie L. Davis, aged 4 months.

SCHAEFFER. August 26th ult., after a short illness, Dr. Luther M. Schaeffer, third son of the late Rev. Dr. David F. Schaeffer, of Frederick city, Md., and formerly of this city, in the 49th year of his age.